

Biofuels

Two biofuels research facilities were established for the development and demonstration of biofuels production from lignocellulosic and microalgae biomass, along with upgrades to research infrastructure at three universities to support biofuels-related research and development activities at the nodes.

Key facts

- State: Qld, Vic, NSW and SA
- Lead institute: AusBiotech Ltd
- Project status: Completed
- Australian Government contribution:
 - \$7.98 million from the National Collaborative Research Infrastructure Strategy program
 - \$3 million under the Super Science Initiative
- Key funding partners: government of South Australia, University of New South Wales, Queensland University of Technology and South Australian Research and Development Institute (SARDI)

Project deliverables

Two biofuels research facilities have been established for the development and demonstration of biofuels production from lignocellulosic and microalgae biomass:

- Mackay Renewable Biocommodities Pilot Plant hosted by the Queensland University of Technology (QUT)
- Algae and Biofuels Facility at the South Australian Research and Development Institute (SARDI).

As part of the project biofuels-related research infrastructure has been upgraded at three universities to support research and development activities.

This project was focussed on the potential to convert agricultural wastes (biomass) to fuels (bioethanol and biodiesel).

Considerable research is required to effectively use cellulose, hemicellulose and lignin to produce biofuels, while the development and growth of novel feedstocks has created considerable interests amongst researchers and support by State Governments.

The South Australian facility (SARDI) provides the capability to research microalgal growth in experimental photobioreactors and raceways. It enables manipulation and monitoring of algal production systems, optimising algal biomass and lipid (oil) yield.

Participating organisations

- AusBiotech Limited (lead agency)
- Queensland University of Technology (QUT)
- South Australian Research and Development Institute (SARDI)

- School of Biotechnology and Biomolecular Sciences, University of New South Wales (UNSW)
- Macquarie University
- The University of Sydney
- South Australian State Government

More information

For more information on:

- the Mackay Renewable Biocommodities Pilot Plant, visit <http://www.ctcb.qut.edu.au/programs/pilot.jsp>
- the Algae and Biofuels Facility at SARDI, visit http://www.sardi.sa.gov.au/_data/assets/pdf_file/0007/229948/Algae_and_Biofuels_flyer.pdf